Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method of forming and planarizing copper layer, comprising the steps of:

providing a substrate;

forming dual damascene trenches in said substrate;

depositing a barrier metal layer on said substrate and in said dual damascene trenches;

depositing a seed layer on top of said barrier metal layer;

electroplating a copper layer on top of said seed layer by means of forward current electroplating;

forming a reverse tone photoresist mask;

etching away that part of said copper layer and said barrier metal layer not covered by said reverse tone photoresist mask by means of reverse current electroplating;

stripping of said photoresist;

planarizing by chemical mechanical polishing (CMP) said now exposed copper layer and barrier metal layer; and

sealing said copper layer with a cap layer.

Claim 2 (original): The method of claim 1, wherein said dual damascene trenches are patterned into a silicon oxide layer of a silicon semiconductor wafer.

Claims 3-5 (canceled)

Claim 6 (previously presented): The method of claim 1, wherein said substrate is a silicon oxide layer of a silicon semiconductor wafer.

Claims 7–9 (canceled)

Claim 10 (previously presented): The method of claim 1, wherein said reverse tone photoresist mask is a photoresist mask covering that part of said copper layer which is in said trenches.

Claim 11 (previously presented): The method of claim 1, wherein said reverse tone photoresist mask also covers spaces between said damascene trenches having a separation of less than a critical distance.

Claim 12 (original): The method of claim 11, wherein said critical distance ranges from 0.05 μm to 0.2 μm.

Claim 13 (new): A method of forming and planarizing metal layer, comprising the steps of:

providing a substrate;

forming dual damascene trenches in said substrate;

depositing a barrier metal layer on said substrate and in said dual damascene trenches;

depositing a seed layer on top of said barrier metal layer;

electroplating a metal layer on top of said seed layer by means of forward current electroplating, wherein said metal layer is copper, gold, aluminum, tungsten, titanium, or silver;

forming a reverse tone photoresist mask;

etching away that part of said metal layer and said barrier metal layer not covered by said reverse tone photoresist mask by means of reverse current electroplating;

stripping of said photoresist;

planarizing by chemical mechanical polishing (CMP) said now exposed metal layer and barrier metal layer; and

sealing said metal layer with a cap layer.